United States Department of Agriculture
Grain Inspection, Packers and Stockyards Administration
Federal Grain Inspection Service

Program Notice

FGIS-PN-00-4 5/1/00

SAMPLE COLLECTION RESPONSIBILITIES FOR VERIFYING THE ACCURACY OF MOISTURE METER CALIBRATIONS. CROP YEAR 2000

1. PURPOSE

This program notice assigns responsibilities for collecting samples needed for verifying the accuracy of NTEP-certified moisture meter calibrations. It also restates the procedure for collecting and submitting the samples.

2. BACKGROUND

The annual Moisture Meter Calibration Study is conducted on current year crop samples to assess the accuracy of the official inspection system and of NTEP-certified moisture meters. FGIS moisture meter calibrations must be verified over the working moisture ranges, significant production areas, and multiple crop years. Each year, the evaluation is performed on samples submitted to Inspection Systems Engineering Branch (ISE) from the field offices. After moisture testing, the samples are made available to other programs in the Technical Services Division.

Sample collection assignments for the respective offices are based on crop production within the geographic areas of responsibility. In some cases, additional assignments in the stable moisture ranges are given to export locations. Also, the quotas for corn and Hard Red Winter wheat in the 14-18% moisture range are increased slightly to provide enough samples for the NTEP testing program.

It is understood that all requested moisture levels may not be available in all areas every year. Since a wide moisture range is very important to the study, field offices should make all reasonable efforts to provide the requested number of samples in each moisture range. However, extraordinary actions are not expected.

3. EFFECTIVE DATE

This program notice is effective upon receipt for the 2000 crop production. Wheat samples should be submitted by September 15, sunflower samples by November 15, and all other grain samples by November 1, 2000. Processed rice production is not strictly seasonal, as is grain production, so the testing and implementation dates are more flexible. Processed rice samples should be submitted by February 28, 2001.

4. **REPLACEMENT HIGHLIGHTS**

This program notice supercedes FGIS Program Notice 99-13, dated June 1, 1999.

5. **RESPONSIBILITIES**

The collection and submission of samples for the annual Moisture Meter Calibration Study are considered regular duties of the selected field offices. All associated time will be charged to the field office standardization management code.

6. **ASSIGNMENTS FOR SELECTED FIELD OFFICES**

During the 2000 growing season, the indicated numbers of samples of the commodities listed in Table 1 (Attachment 2) must be collected, tested for moisture, and submitted by the respective field offices to ISE. Each sample should weigh approximately 1500 grams.

7. **INSTRUCTIONS**

a. The purpose of this effort is to obtain representative samples from the entire nation. Therefore, it is important to have each office fill its quota at all moisture levels, if possible. However, do not submit extra samples in any moisture range, do not adjust the moisture level of samples by adding water or by drying in the laboratory, and do not submit multiple portions of the same lot of grain.

b. Samples with moisture levels slightly beyond the established moisture ranges are useful in calibrating the extreme ends of the calibrations and extending the measurement ranges. For this reason, the ranges of requested samples (Table 1) have been extended slightly beyond established limits. When submitting samples, if the moisture falls outside the range of the applicable GAC 2100 calibration or Motomco 919 moisture chart, obtain an approximate moisture. The true moisture will later be determined at ISE by air oven.

c. If dockage is removed for inspection purposes, do not recombine it before submitting the sample.

d. Significant amounts of time and effort are invested in collecting and submitting the moisture samples. This investment can easily be lost through insect infestation, microbial spoilage, or late sample submission. To prevent such loss, please collect the samples during the growing season and at harvest time and submit them promptly. Then, the remaining time until the closing date is still available for submitting those samples which are difficult to obtain.

Samples above 16% moisture (14% for sunflower seeds and 11% for minor oilseeds) require special handling. A significant number of high-moisture samples are routinely lost by spoilage due to unexpected delays in transportation. To minimize this loss, use the following precautions:

(1) Keep high moisture samples refrigerated (not frozen) until shipped. Hold them no longer than one week before shipping.

(2) Ship high-moisture samples by Federal Express (or the current FGIS contract carrier) at least 48 hours before a weekend/holiday.

e. An easy way to account for samples submitted is to prepare mailing tags for the total number of samples of each commodity to be collected. Write on the back of each tag the commodity and moisture range. When all of the mailing tags are used, the required number of samples have been submitted.

f. Samples in the annual Moisture Calibration Study are used to calibrate NTEP-certified meter models, in addition to the official model. One of the NTEP models requires a much larger sample than does the official model. Thus, it is now more important than ever to obtain samples that will weigh at least 1200 grams after cleaning. Nevertheless, it is understood that the choice of samples is often very limited. When only underweight samples are available, submit those that best fit the requirements described in these instructions.

g. Some offices have inquired why sample test weight is requested on the mailing tag. Most dielectric models have a test weight correction built into the software or hardware of the meter. These corrections need to be checked using external test weight data. For clean samples of sufficient volume, test weight will be determined by ISE so it is not necessary to record test weight on the mailing tag. However, some submitted samples are too small to fill the kettle; others are large enough but, after cleaning, the remaining volume is insufficient. For such undersized samples, please record the test weight on the tag (or transmittal slip) if it is known.

h. Questions concerning these instructions should be directed to James Rampton, telephone (816) 891-0450, or Patricia Jackson (816) 891-0445. If there is a special problem with a sample assignment, please notify the Moisture Laboratory, ISE, by telephone as early in the season as possible.

i. Shipping instructions. Seal each sample in a polyethylene bag (6 mil thickness). Insert the bag into a canvas grain bag. When shipping several samples in a larger container (box or mail sack), a canvas grain bag around each poly bag is still needed to prevent the poly bags from breaking in transit. Record the field office location, date, commodity, official meter moisture, and test weight (if sample size is limited) on the back of the mailing tag accompanying the sample. (If preferred, the transmittal form [Attachment 1] may be used and shipped with the sample. Insert the transmittal form between the poly bag and the canvas grain bag.) Attach the mailing tag to the bag. Send samples to:

USDA-GIPSA-FGIS Technical Center
Technical Services Division
Moisture Laboratory
10383 N. Executive Hills Blvd.
Kansas City, MO 64153-1394

/s/

David Orr, Director
Field Management Division

Attachments

Attachment 1
FGIS-PN-00-4
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Moisture Sample Transmittal Form

Field Office Use Only	ISE Use Only
F.O._____	ISE NO._____
DATE_____	_____
COMMODITY_____	REMARKS_____
MOISTURE_____	_____
TEST WT._____	_____

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Moisture Sample Transmittal Form

Field Office Use Only	ISE Use Only
F.O._____	ISE NO._____
DATE_____	_____
COMMODITY_____	REMARKS_____
MOISTURE_____	_____
TEST WT._____	_____

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Moisture Sample Transmittal Form

Field Office Use Only	ISE Use Only
F.O._____	ISE NO._____
DATE_____	_____
COMMODITY_____	REMARKS_____
MOISTURE_____	_____
TEST WT._____	_____

Table 1. Sample collection assignments, 2000 Crop Year

1. Barley, Six-Rowed	Office	Moisture Range (%) 7-11	11-14	14-17	17-21	All
	Baltimore	3	3	2	2	10
	California	2	2	2	2	8
	Grand Forks	7	7	6	6	26
	Minneapolis	3	4	3	3	13
	Moscow	3	4	3	3	13

2. Barley, Two-Rowed	Office	Moisture Range (%) 7-11	11-14	14-17	17-21	All
	Grand Forks	3	3	3	3	12
	Moscow	10	11	10	10	41
	Washington	4	5	4	4	17

3. Corn	Office	Moisture Range (%) 7-11	11-14	14-18	18-22	22-26	26-31	All
	Baltimore	1	2	1	0	0	0	4
	Cedar Rapids	10	10	14	10	9	8	61
	Grand Forks	4	4	6	4	3	2	23
	Kansas City	6	7	8	6	6	6	39
	League City	2	2	2	1	1	1	9
	Minneapolis	7	7	9	7	7	6	43
	New Orleans	2	2	2	0	0	0	6
	Stuttgart	3	3	4	3	2	2	17
	Toledo	8	8	11	7	7	6	47
	Wichita	7	7	10	7	7	6	44

4. Oats		Moisture Range (%) 7-11	11-14	14-17	17-21	All
	Cedar Rapids	5	5	5	4	19
	Grand Forks	8	8	8	8	32
	Minneapolis	10	10	10	9	39

Attachment 2
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5. Rough Rice, Long Grain	Office	Moisture Range (%) 7-11	11-14	14-18	18-22	22-26	All
	League City	4	4	4	3	3	18
	New Orleans	5	5	5	5	5	25
	Stuttgart	10	10	9	9	9	47

6. Rough Rice, Medium Grain	Office	Moisture Range (%) 7-11	11-14	14-18	18-22	22-26	All
	California	10	10	10	9	9	48
	New Orleans	2	3	2	2	2	11
	Stuttgart	6	7	6	6	6	31

7. Sorghum	Office	Moisture Range (%) 7-11	11-14	14-18	18-22	22-26	All
	Kansas City	4	4	4	4	3	19
	League City	7	7	4	4	4	26
	New Orleans	2	2	0	0	0	4
	Stuttgart	2	2	0	0	0	4
	Wichita	6	6	6	6	5	29

8. Soybeans	Office	Moisture Range (%) 7-11	11-14	14-17	17-21	All
	Baltimore	2	2	0	0	4
	Cedar Rapids	12	12	12	12	48
	Grand Forks	5	5	5	4	19
	Kansas City	8	9	8	8	33
	League City	2	2	0	0	4
	Minneapolis	7	8	7	7	29
	New Orleans	2	2	0	0	4
	Stuttgart	6	6	5	5	22
	Toledo	11	11	9	8	39
	Wichita	6	6	6	6	24

9. Sunflower Seed, Oil Type	Office	Moisture Range (%) 4-7	7-10	10-14	14-18	18-22	22-26	All
	Grand Forks	17	17	16	16	16	16	98
	Wichita	6	6	5	5	5	5	32

10. Wheat, Durum	Office	Moisture Range (%) 6-11	11-14	14-17	17-21	All
	California	5	6	5	5	21
	Duluth	2	2	0	0	4
	Grand Forks	11	11	11	10	43
	Moscow	3	4	3	3	13

11. Wheat, Hard Red Spring	Office	Moisture Range (%) 6-11	11-14	14-17	17-21	All
	Duluth	2	2	0	0	4
	Grand Forks	8	9	8	8	33
	Minneapolis	4	4	4	4	16
	Moscow	5	6	5	5	21
	Washington	1	1	0	0	2

12. Wheat, Hard White	Office	Moisture Range (%) 6-11	11-14	14-17	17-21	All
	California	8	8	7	7	30
	Moscow	3	3	3	2	11
	Wichita	9	9	9	8	35

Attachment 2
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13. Wheat, Soft White	Office	Moisture Range (%) 7-11	11-14	14-17	17-21	All
	Baltimore	2	3	2	1	8
	Moscow	6	6	6	5	23
	Portland	2	2	0	0	4
	Toledo	3	3	2	2	10
	Washington	8	8	6	5	27

14. Wheat, Hard Red Winter	Office	Moisture Range (%) 7-11	11-14	14-17	17-21	All
	California	2	3	3	1	9
	Grand Forks	3	3	4	2	12
	Kansas City	3	4	5	2	13
	League City	3	3	3	1	10
	Moscow	2	2	4	1	9
	Washington	1	1	1	0	3
	Wichita	8	8	10	7	33

15. Wheat, Soft Red Winter	Office	Moisture Range (%) 6-11	11-14	14-17	17-21	All
	Baltimore	4	5	3	3	15
	Cedar Rapids	2	3	2	2	9
	Kansas City	3	3	3	2	11
	New Orleans	1	1	0	0	2
	Stuttgart	4	5	3	3	15
	Toledo	5	5	4	3	17

16. Flaxseed	Office	Moisture Range (%) 4-7	7-10	10-13	13-16	All
	Grand Forks	10	11	10	10	41
	Minneapolis	2	3	2	2	9

17. Beans, Dark Red Kidney	Office	Moisture Range (%) 7-11	11-14	14-17	17-21	All
	Baltimore	1	2	2	1	6
	California	2	2	2	2	8
	Duluth	4	5	5	4	18
	Grand Forks	2	2	2	2	8
	Minneapolis	2	3	2	2	9
	Toledo	3	3	3	2	11

18. Beans, Light Red Kidney	Office	Moisture Range (%) 7-11	11-14	14-17	17-21	All
	Baltimore	1	2	2	1	6
	California	2	2	2	2	8
	Duluth	2	2	1	1	6
	Kansas City	0	1	1	0	2
	Minneapolis	1	1	1	0	3
	Toledo	4	4	4	3	15
	Wichita	5	5	5	5	20

19. Lentils	Office	Moisture Range (%) 6-9	9-12	12-16	16-20	All
	Moscow	8	7	7	7	29
	Washington	8	8	8	7	31

20. Peas, Smooth Dry	Office	Moisture Range (%) 6-9	9-12	12-16	16-20	All
	Grand Forks	2	2	1	1	6
	Moscow	7	6	6	6	25
	Washington	9	9	9	8	35

Attachment 2
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		Moisture Range (%)					
21. Rough Rice, Short Grain	Office	7-11	11-14	14-18	18-22	22-26	All
	California	10	10	10	10	10	50

		Moisture Range (%)				
22. Safflower Seed	Office	3-6	6-9	9-12	12-15	All
	California	13	13	12	12	50
	Wichita	3	3	2	2	10

		Moisture Range (%)						
23. Sunflower Seed, Confectionery	Office	4-7	7-10	10-14	14-18	18-22	22-26	All
	Grand Forks	13	13	13	12	12	12	75
	Minneapolis	2	2	2	1	1	0	8
	Wichita	8	8	8	8	8	7	47

		Moisture Range (%)				
24. Rice, Brewers Milled	Office	9-11	11-13	13-15	15-17	All
	California	4	4	4	3	15
	League City	4	4	4	3	15
	New Orleans	4	4	4	3	15
	Stuttgart	4	4	4	3	15

		Moisture Range (%)				
25. Rice, Long Grain Brown	Office	9-11	11-13	13-15	15-17	All
	League City	5	5	5	5	20
	New Orleans	5	5	5	5	20
	Stuttgart	5	5	5	5	20

26. Rice, Long Grain Brown (Parboiled)	Office	Moisture Range (%) 9-12	12-14	14-17	17-20	All
	League City	7	8	8	7	30
	Stuttgart	7	8	8	7	30

27. Rice, Long Grain Milled	Office	Moisture Range (%) 9-11	11-13	13-15	15-17	All
	League City	5	5	5	5	20
	New Orleans	5	5	5	5	20
	Stuttgart	5	5	5	5	20

28. Rice, Long Grain Milled (Parboiled)	Office	Moisture Range (%) 9-12	12-14	14-17	17-20	All
	League City	7	8	8	7	30
	Stuttgart	7	8	8	7	30

29. Rice, Medium Grain Brown	Office	Moisture Range (%) 9-11	11-13	13-15	15-17	All
	California	5	5	5	5	20
	League City	2	3	3	2	10
	New Orleans	5	5	5	5	20
	Stuttgart	2	3	3	2	10

30. Rice, Medium Grain Milled	Office	Moisture Range (%) 9-11	11-13	13-15	15-17	All
	California	5	5	5	5	20
	League City	2	3	3	2	10
	New Orleans	5	5	5	5	20
	Stuttgart	2	3	3	2	10